

AMENDMENTS TO THE CLAIMS

(IN FORMAT COMPLIANT WITH THE REVISED 37 CFR 1.121)

Please cancel claims 10, 18 and 19 without prejudice.

1. (CURRENTLY AMENDED) A method for interconnecting a plurality of dies, comprising the steps of:

(A) receiving a plurality of interconnect requirements for said plurality of dies, said plurality of interconnect requirements comprising (i) a priority order for each of a plurality of nets and (ii) at least one delay from a group of delays consisting of a shortest possible delay, a maximum delay, a range of delays, and a ratsnest delay;

(B) calculating a position and an angle for one of said plurality of dies relative to a substrate mounting of said plurality of dies in response to said plurality of interconnect requirements; and

(C) routing said plurality of nets among said plurality of dies and a plurality of substrate pads on said substrate, said plurality of substrate pads defining external connections.

2. (CURRENTLY AMENDED) The method according to claim 21, wherein said plurality of interconnect requirements further comprise a priority order for each of said plurality of nets.

3. (PREVIOUSLY PRESENTED) The method according to claim 1, wherein step (C) further comprises the sub-step of routing said plurality of nets one at a time in descending order of said priority order.

4. (PREVIOUSLY PRESENTED) The method according to claim 3, further comprising the step of rotating one of said plurality of dies in response to a target net of said plurality of nets having a shortest possible length requirement of said plurality of interconnect requirements.

5. (CURRENTLY AMENDED) The method according to claim 3, further comprising the step of moving one of said plurality of dies in response to ~~said a~~ target net of said plurality of nets having a shortest possible length requirement of said plurality of interconnect requirements.

6. (PREVIOUSLY PRESENTED) The method according to claim 1, further comprising the step of rotating one of said plurality of dies in response to a target net of said plurality of nets failing to meet at least one of said plurality of interconnect requirements.

7. (CURRENTLY AMENDED) The method according to claim 1, further comprising the step of moving one of said plurality of dies in response to ~~said a~~ target net of said plurality of nets failing to meet at least one of said plurality of interconnect requirements.

8. (CURRENTLY AMENDED) The method according to claim 1, wherein a trace group comprises routing together at least two nets of said plurality of nets ~~routed together~~.

9. (CURRENTLY AMENDED) ~~The method according to claim 8,~~
A method for interconnecting a plurality of dies, comprising the steps of:

(A) receiving a plurality of interconnect requirements for said plurality of dies, said plurality of interconnect requirements comprising a priority order for each of a plurality of nets;

(B) calculating a position and an angle for one of said plurality of dies relative to a substrate mounting of said plurality of dies in response to said plurality of interconnect requirements; and

(C) routing said plurality of nets among said plurality of dies and a plurality of substrate pads on said substrate, said plurality of substrate pads defining external connections, wherein

15 (i) a trace group comprises routing together at least two nets of
 said plurality of nets and (ii) said plurality of interconnect
 requirements further comprise a maximum delay variation among said
 at least two nets of said trace group.

10. (CANCELED)

11. (CURRENTLY AMENDED) A storage medium for use in a
computer for interconnecting a plurality of dies, the storage
medium recording a computer program that is readable and executable
by the computer, the computer program comprising the steps of:

5 (A) receiving a plurality of interconnect requirements
for said plurality of dies;

 (B) calculating a position and an angle for one of said
plurality of dies relative to a substrate mounting said plurality
of dies in response to said plurality of interconnect requirements;
10 and

 (C) routing a plurality of nets among said plurality of
dies and a plurality of substrate pads on said substrate, said
plurality of substrate pads defining external connections, wherein
 (i) a trace group comprises routing together at least two nets of
15 said plurality of nets and (ii) said plurality of interconnect
 requirements comprise a maximum delay variation among said at least
 two nets of said trace group.

12. (CURRENTLY AMENDED) The storage medium according to claim 11, wherein said plurality of interconnect requirements further comprise a priority order for each of said plurality of nets.

13. (PREVIOUSLY PRESENTED) The storage medium according to claim 12, wherein step (C) further comprises the sub-step of routing said plurality of nets one at a time in descending order of said priority order.

14. (PREVIOUSLY PRESENTED) The storage medium according to claim 13, further comprising the step of rotating one of said plurality of dies in response to a target net of said plurality of nets having a shortest possible length requirement of said plurality of interconnect requirements.

15. (CURRENTLY AMENDED) The storage medium according to claim 13, further comprising the step of moving one of said plurality of dies in response to ~~said~~ a target net of said plurality of nets having a shortest possible length requirement of said plurality of interconnect requirements.

16. (PREVIOUSLY PRESENTED) The storage medium according to claim 11, further comprising the step of rotating one of said plurality of dies in response to a target net of said plurality of nets failing to meet at least one of said plurality of interconnect requirements.

17. (CURRENTLY AMENDED) The storage medium according to claim 11, further comprising the step of moving one of said plurality of dies in response to ~~said~~ a target net of said plurality of nets failing to meet at least one of said plurality of interconnect requirements.

18. (CANCELED)

19. (CANCELED)

20. (CURRENTLY AMENDED) An apparatus comprising:
means for receiving a plurality of interconnect requirements for a plurality of dies, said plurality of interconnect requirements comprising (i) a priority order for each of a plurality of nets and (ii) at least one delay from a group of delays consisting of a shortest possible delay, a maximum delay, a range of delays, and a ratsnest delay;

means for calculating a position and an angle for one of
said plurality of dies relative to a substrate mounting of said
10 plurality of dies in response to said plurality of interconnect
requirements; and

means for routing a said plurality of nets among said
plurality of dies and a plurality of substrate pads on said
substrate, said plurality of substrate pads defining external
15 connections.

21. (CURRENTLY AMENDED) A method for interconnecting a
plurality of dies, comprising the steps of:

(A) receiving a plurality of interconnect requirements
for said plurality of dies, said plurality of interconnect
5 requirements comprising at least one delay from a group of delays
consisting of a shortest possible delay, a maximum delay, a range
of delays, and a ratsnest delay;

(B) calculating a position and an angle for one of said
plurality of dies relative to a substrate mounting of said
10 plurality of dies in response to said plurality of interconnect
requirements;

(C) routing a plurality of nets among said plurality of
dies and a plurality of substrate pads on said substrate, said
plurality of substrate pads defining external connections; and

15 (D) rotating one of said plurality of dies in response
to a target net of said plurality of nets failing to meet at least
one of said plurality of interconnect requirements.